

ABSTRACT OF THE DISCLOSURE

5 Ultrasonic bone testing apparatus including a pair of spaced piezoelectric copolymer transducers for transmitting and receiving ultrasonic energy through a bone-containing portion of a human or other animal disposed between the transducers, and circuitry for detecting an electrical signal generated by the receiving transducer in response to reception of ultrasonic energy. The transducers are disks of the copolymer supported by 10 rigid rings spaced inwardly of their peripheries. A method of determining a characteristic of bone in a bone-containing portion of an animal includes positioning a pair of piezoelectric copolymer ultrasonic transducers respectively on opposite sides of, and ultrasonically coupling both transducers to, the animal 15 portion, and transmitting ultrasonic energy through the animal portion including the bone to be tested from one transducer to the other. The animal portion may be a human heel.